



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

VOL. 39

JANUARY 1912

NO 1

# BULLETIN

OF THE

## TORREY BOTANICAL CLUB

*Editor*

PHILIP DOWELL

*Associate Editors*

JOHN HENDLEY BARNHART

JEAN BROADHURST

ERNEST DUNBAR CLARK

ALEXANDER WILLIAM EVANS

ROBERT ALMER HARPER

MARSHALL AVERY HOWE

HERBERT MAULE RICHARDS

NORMAN TAYLOR

### CONTENTS

Studies of West Indian plants—IV . . . .	NATHANIEL LORD BRITTON	1
Observations on the degree of stomatal movement in certain plants		
	BURTON E. LIVINGSTON and ARTHUR H. ESTABROOK	15
Notes on the North American species of <i>Phanerophlebia</i>		
	WILLIAM R. MAXON	23
INDEX TO AMERICAN BOTANICAL LITERATURE . . . . .		29

PUBLISHED FOR THE CLUB

THE NEW ERA PRINTING COMPANY  
LANCASTER, PA.

# THE TORREY BOTANICAL CLUB

## *President*

EDWARD S. BURGESS, PH.D.

## *Vice-Presidents*

JOHN HENDLEY BARNHART, A.M., M.D.  
HERBERT M. RICHARDS, Sc.D.

## *Secretary and Treasurer*

BERNARD O. DODGE, PH. B.  
Dept. of Botany, Columbia University  
New York City

## MEETINGS

Meetings twice each month from October to May inclusive: the second Tuesday, at 8:00 P.M., at the American Museum of Natural History; the last Wednesday, at 3:30 P.M., in the Museum Building of the New York Botanical Garden.

## PUBLICATIONS

All subscriptions and other business communications relating to the publications of the Club should be addressed to the Treasurer, Bernard O. Dodge, Dept. of Botany, Columbia University, New York City.

**Bulletin.** Monthly, established 1870. Price, \$3.00 a year; single numbers 30 cents. Of former volumes, only 24-38 can be supplied separately; certain numbers of other volumes are available, but the entire stock of some numbers has been reserved for the completion of sets. Manuscripts intended for publication in the BULLETIN should be addressed to Philip Dowell, Editor, Port Richmond, N. Y.

**Torreyia.** Monthly, established 1901. Price, \$1.00 a year. Manuscripts intended for publication in TORREYA should be addressed to Norman Taylor, Editor, Central Museum, Eastern Parkway, Brooklyn, N. Y.

**Memoirs.** Occasional, established 1889. (See last pages of cover.)

**Preliminary Catalogue** of Anthophyta and Pteridophyta within 100 miles of New York City, 1888. Price, \$1.00

**Reprints.** Contributors of articles accepted for publication in the BULLETIN should order reprints, if desired, when they return galley proof to the editor. 25 copies of reprints without cover may be had gratis. If cover is wanted, or if more than 25 copies are wanted, they may be ordered at the following rates from The New Era Printing Co., Lancaster, Pa., the contributor paying for all his reprints.

	2pp	4pp	8pp	12pp	16pp	20pp
25 copies	\$ .75	\$1.05	\$1.30	\$1.80	\$2.20	\$2.50
50 copies	.90	1.20	1.70	2.20	2.50	2.85
100 copies	1.15	1.55	1.95	2.55	2.90	3.20
200 copies	1.70	2.35	2.90	3.75	4.35	4.70

Covers: 25 for 75 cents, additional covers 1 cent each.

Plates for reprints, 40 cents each per 100.